

## ABSTRACT

A method is provided, which comprises examining the regulating activity of a defensin gene promoter closely associated with the expression activity of defensin, an antibacterial peptide, on the basis of the detection of a gene mutation, and estimating future susceptibility to periodontal disease. The sequence homology between DNA derived from a defensin gene promoter existing in a sample obtained from the gingival tissues of a subject and a nucleotide sequence comprising a mutation site in the promoter region, and/or compatibility in PCR amplification, are determined. Thereby a gene mutation is detected and then the site of the gene mutation is determined, so that data for the estimation can be collected.